

Title (en)

Method of producing a basin body, in particular a tipping trough for a transport vehicle using laser welding process ; corresponding basin body, in particular a tipping trough for a transport vehicle and basin body for a transport vehicle

Title (de)

Verfahren zur Herstellung eines Muldenkörpers, insbesondere einer Kippmulde für ein Transportfahrzeug ; unter Verwendung von Laserschweißen ; entsprechender Muldenkörper, insbesondere Kippmulde für ein Transportfahrzeug

Title (fr)

Procédé de fabrication d'un corps de benne, notamment une benne basculante pour un véhicule de transport utilisant un procédé de soudage laser ; Corps de benne correspondant, notamment benne basculante pour un véhicule de transport

Publication

EP 2377640 A1 20111019 (DE)

Application

EP 10004970 A 20100511

Priority

- EP 10004034 A 20100416
- EP 10004970 A 20100511

Abstract (en)

The method for manufacturing a dump body (10) such as a tipping trough for a transport vehicle, comprises providing plate-shaped modules of a predetermined material quality, thickness and dimensions, arranging the modules in a predetermined profile to form the dump body, connecting the modules by a laser hybrid welding of formed seams by using an additive or by a laser fusion welding of the formed seams without using the additive, and welding together the polygonal edges of the modules to form the dump body profile. The method for manufacturing a dump body (10) such as a tipping trough for a transport vehicle, comprises providing plate-shaped modules of a predetermined material quality, thickness and dimensions, arranging the modules in a predetermined profile to form the dump body, connecting the modules by a laser hybrid welding of formed seams by using an additive or by a laser fusion welding of the formed seams without using the additive, and welding together the polygonal edges of the modules to form the dump body profile. The modules are arranged and are selected in such a way that areas of the dump body to be delivered, which under-lying in the later use of an increased risk of wear, are manufactured by the modules, which have a different material quality and/or material thickness than the modules, which are arranged in an area of the dump body that is subjected to less wear in later use. The l-welded joints are welded at a position without joint welding preparation. The edges of the modules run into the blunt in such a way that a joint gap is formed of less than 0.05 mm. A continuous wave is welded or pulsed. The plate-shaped modules are fitted by laser cutting edge, where end contours are attached to the modules. A welding seam (18) is arranged so that the properties, the appearance and/or function of the dump body profile are not influenced.

Abstract (de)

Die Erfindung bezieht sich auf ein Verfahren zur Herstellung eines Muldenkörpers, insbesondere einer Kippmulde für ein Transportfahrzeug, sowie auf einen Muldenkörper, insbesondere auf eine Kippmulde für ein Transportfahrzeug unter Verwendung eines Laserschweisverfahrens zum Verbinden von plattenförmigen Modulen mit vorgegebenen Materialgüten und -stärken sowie mit vorgegebenen Abmessungen.

IPC 8 full level

B23K 26/26 (2014.01); **B60P 1/28** (2006.01); **B62D 27/02** (2006.01); **B62D 33/02** (2006.01)

CPC (source: EP)

B21D 35/006 (2013.01); **B23K 26/26** (2013.01); **B60P 1/286** (2013.01); **B23K 2101/185** (2018.07)

Citation (applicant)

EP 1319584 A1 20030618 - KOEGEL FAHRZEUGWERKE AG [DE]

Citation (search report)

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- [Y] US 2005045603 A1 20050303 - KIEHL MARK W [US]
- [A] JP H11104749 A 19990420 - NIPPON STEEL CORP
- [A] EP 1197385 A1 20020417 - LEGRAS IND SA [FR]
- [AD] EP 1319584 A1 20030618 - KOEGEL FAHRZEUGWERKE AG [DE]

Cited by

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

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